

REMARKS/ARGUMENTS

Reconsideration and allowance of this application are respectfully requested.

Currently, claims 2-14 and 16-29 are pending in this application.

Objection to the Claims:

Claims 13 and 25 were objected to because of an informality. These claims have been editorially amended in light of the Examiner's helpful comments. In particular, Applicant submits that all recited elements of claims 13 and 25 have a proper antecedent basis. Applicant thus respectfully requests withdrawal of the objection to claims 13 and 25.

Rejections Under 35 U.S.C. §112, Second Paragraph:

Claims 1-25 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Applicant respectfully traverses this rejection.

The Office Action apparently alleges that the specification does not recite any corresponding structure or define any of the "means" in "warming-up means", "pre-start state detecting means", "anomaly detecting means" and "vehicle state detecting means" as recited by the claims. Applicant respectfully disagrees with this allegation. For example, with respect to "warming-up means" as required by independent claim 1, the specification clearly describes for example, an air-fuel ratio sensor heater 10. (See Fig. 1 and page 4, lines 14 *et seq.* of the substitute specification). Additional or alternative heaters for executing "warming-up" are disclosed, for example, by heaters 31-34 of Fig. 1. (See page 16, lines 8-19 of the substitute specification). The Office Action's allegation that the specification does not disclose structure corresponding to the function of the "warming-up means" is therefore erroneous.

As further examples, the specification discloses exemplary structure for the “pre-start state detecting means” in Fig. 6 and pages 11-12 of the substitute specification. As one example of corresponding structure, the specification discloses a driver seat switch 9. (See also dependent claim 3).

The specification also describes numerous examples of corresponding structure for a “vehicle state detecting means.” For example, Fig. 1 and page 4, lines 1-13 of the substitute specification discloses the signal generators 21-30 which respectively indicate a vehicle speed, an engine rotation speed, an amount of air drawn into the engine, a pressure detected in an exhaust path, an opening degree of an accelerator, an opening degree of a throttle, deceleration, a clutch pedal depression, a cooling water temperature and an air-fuel ratio. (See also dependent claim 4). The specification thus describes numerous examples of structure corresponding to the function provided by the vehicle state detecting means.”

It is thus clear that the vehicle state detecting means and the pre-start state detecting means have different functions. This difference in functions can clearly be appreciated from the specifically identified (and different) functions recited in the claim language itself. Namely, the “pre-start state detecting means” has the function of “detecting a pre-start state by detecting a preparation operation for a start of the engine...”, whereas the “vehicle state detecting means” has the function of “detecting a vehicle state.” The “vehicle state detecting means” and the “pre-start state detecting means” thus clearly correspond to different structure as evident by the explicitly recited (and different) functions and corresponding structures described in the specification.

The specification also describes structure corresponding to the function of the “anomaly detecting means.” For example, page 11 of the substitute specification states, *inter alia*, “In the above-mentioned routine, the failure diagnosis is conducted on the seat switch 9 after the driver stops the engine. The ECU 1 therefore needs to be running even when the driver stops the engine. Processing from the time the engine is stopped by the driver until the ECU 1 is stopped will be explained with reference to FIG. 7.”

Accordingly, the specification clearly provides adequate structure corresponding to the function of the anomaly detecting means.

Claims 16-29 do not require any “means” phraseology. Applicant thus respectfully submits that these claims should not be construed under 35 U.S.C. §112, sixth paragraph.

Page 3 of the Office Action alleged that the recitation of “component relating to the engine” was indefinite. While Applicant disagrees, Applicant has editorially amended this claim language in order to expedite allowance of the present application. In particular, now independent claims 2, 12 and 13 (which include the limitations of now canceled claim 1) states “an internal combustion engine and a component having an operative relationship with the engine.” Similar comments apply to independent claim 16 (which includes the limitations of now canceled claim 15). This language is clearly supported by, for example, page 4, lines 14-27 and page 16, lines 8-19 of the substitute specification. For example, page 16 describes a fuel injection valve “provided for injecting fuel into the engine.” By injecting fuel into the engine, this fuel injection valve has an operative relationship with the engine. Similar comments apply to the air-fuel

ratio sensor, suction pipe, catalytic converter and canister identified in page 16 of the substitute specification.

With respect to claims 5 and 18, Applicant has amended these claims to require the "OFF-signal" of the driver-seat switch. Applicant thus respectfully submits that claims 5 and 18 are thus clear.

Accordingly, Applicant respectfully submits that all pending claims are in full conformance with 35 U.S.C. §112, second paragraph.

Rejections Under 35 U.S.C. §102 and §103:

Claims 1 and 15 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Iwatani et al (U.S. '512, hereinafter "Iwatani"). Claim 14 was rejected under 35 U.S.C. §103 as allegedly being unpatentable over Iwatani in view of Ajima (U.S. '624). Applicant respectfully traverses these rejections.

Claims 1 and 15 have been canceled. Claim 14 has been amended to depend from claim 2.

As noted above, pending claims 2-13 and 16-25 are in full conformance with 35 U.S.C. §112, second paragraph. None of these claims were rejected over prior art. Accordingly, claims 2-13 and 16-25 include allowable subject matter. New claims 26-29 are allowable by virtue of being directly or indirectly dependent from claim 16. Claim 14 is allowable by virtue of being dependent from claim 2.

Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes

FUJIMOTO et al.
Application No. 10/705,963
January 5, 2007

that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

NIXON & VANDERHYTE P.C.

By: 

Raymond Y. Mah
Reg. No. 41,426

RYM:sl
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4044
Facsimile: (703) 816-4100